

We claim:

1. A method of providing taxable product information comprising:

providing a product for distribution through a distribution chain;

tracking the product through at least a portion of the distribution chain to

- 5 determine product location information along the distribution chain; and

making the product location information available such that a tax assessment may be made on the product.

2. The method of Claim 1 further comprising the step of marking the product with an identifying indicia to be tracked in the tracking step such that the product location information
10 may be associated with the identifying indicia of the product.

3. The method of Claim 2 further comprising the step of determining the tax payable on the product based on the product location information associated with the identifying indicia.

4. A method of tracking a product in a distribution process for tax assessment purposes comprising the steps of:

- 15 coding the product with a readable product identifier prior to or during the distribution process;

entering the product identifier into a tracking database;

associating the product identifier with a product destination;

reading the product identifier at at least one desired location during the

- 20 distribution process;

transmitting the location of the product by sending the product identifier to the tracking database to create a product distribution path history; and

providing the product distribution path history from the tracking database to at least one interested party.

- 5 5. The method of Claim 4 wherein the coding is performed with a laser.
6. The method of Claim 4 wherein the coding of the product occurs during packaging of the product.
7. The method of Claim 4 wherein the product identifier is unique.
8. The method of Claim 4 wherein the product identifier is semi-unique.
- 10 9. The method of Claim 4 wherein the product is cigarettes.
10. The method of Claim 4 wherein the product is alcoholic beverages.
11. The method of Claim 4 further including the step of paying taxes associated with the product based upon the product distribution path history in the tracking database.
12. The method of Claim 4 wherein at least one of the interested parties is a taxing authority.
- 15 13. The method of Claim 4 further including the steps of packaging the product into cartons and coding the cartons with a carton identifier, and wherein the carton identifier is tracked in the tracking database.

14. The method of Claim 4 further including the steps of packaging the product in a case and coding the case with the case identifier, and wherein the case identifier is tracked by the tracking database.

15. A method of assessing a tax on a product comprising:

5 establishing a communications network between a product distribution network and a taxing authority for the product;

laser coding each product with a laser code having associated product information at a product manufacturer in the product distribution network;

10 reading the laser code as the product travels through the product distribution network;

tracking the product through the communications network as a result of the reading step;

transmitting the product information via the communications network to the taxing authority; and

15 automatically assessing tax associates with the tracked products based on the information from the reading of the laser code.

16. The method of tracking a package product comprising:

providing a product having a package therefore;

marking the package with a package identifying indicia;

20 packing a plurality of packages into a carton;

marking the carton with a carton identifying indicia;

packing a plurality of cartons into a case;

marking the case with a case identifying indicia; and

tracking the case identifying indicia throughout a distribution chain for the

5 product, by reading the case identifying indicia along the distribution channel, such that the information related to the case identifying indicia, carton identifying indicia and the package identifying indicia maybe transmitted to a central database.

17. The method of Claim 16 further including a step of applying a transparent wrapper on the package to cover the package identifying indicia.

10 18. The method of Claim 16, wherein the case identifying indicia is a radio frequency identification (RFID) tag.

19. The method of Claim 16, wherein at least one of the marking steps is performed with an ink jet marking apparatus.

20. The method of Claim 16, wherein at least one of the marking steps is performed
15 with a laser.

21. The method of Claim 20, wherein the laser is a pulsed CO₂ laser.

22. The method of Claim 20, wherein the laser is a beam-steered laser.

23. A method of product tracking comprising the steps of:

20 providing a product having a package, a prior carton for holding a plurality of packages, and a product case for holding a plurality of product cartons;

marking at least one of the product packages, product cartons and product cases with an identifying indicia.;

tracking the product case through at least a portion of a product distribution system; and

5 generating information related to the product package for an assessment of taxes on the product package based on the tracking of the identifying indicia.

24. A tracking system comprising:

a central tracking database;

10 a production area for producing a product, for packaging the product into product cartons and applying a product identifying indicia, and packaging product cartons into product cases and coding the product cases with an identifying indicia;

a factory database for receiving and transmitting data related to the product, the product carton and the product case;

a storage facility connected to the factory database;

15 a warehouse facility connected to the central tracking database;

a distribution facility connected to the central tracking database; and

at least one reader connected to the central tracking database such that the product cases maybe monitored at the production area, the storage facility, the warehouse facility, or the distribution facility to maintain a position and content of the product case.

20 25. The system of Claim 24, further including a tax administration facility connected to the central tracking database for receiving information leading to the product cases for

generating information relating to an assessment of taxes on the product package based on the tracking of the product case.

26. The system of Claim 24 where the central tracking database is connected to the factory database and is accessible through the internet.

5 27. A laser marking system for marking a package comprising:

a laser beam generator for generating a laser beam;

a mask having a stencil pattern representative of a desired identifying indicia, the mask receptive to the laser beam and capable of passing a laser beam through the stencil pattern;

10 a lens in operational association with the mask to receive the laser beam and focus the laser beam onto the package to project the desired identifying indicia thereon.

28. A method of making a package comprising:

generating a laser beam;

15 passing the laser beam through a mask having a stencil pattern representative of a desired identifying indicia, the mask receptive to the laser beam and capable of passing the laser beam through the stencil pattern;

focusing the laser beam with a lens onto the package; and

marking the package with the laser beam to generate the desired identifying indicia on the package.

20 29. The method of Claim 28, wherein the marking step includes a removing a surface layer of the package to reveal a contrast layer below the surface layer.

30. The method of Claim 28, further including the step of modifying a surface layer of the package causing a color change in the surface layer of the package.

31. The method of Claim 28, further including the steps of:

providing a plurality of stencil patterns each having an identifying indicia; and

5 changing the masks to receive the laser beam such that the laser beam passing through the stencil pattern may provide a plurality of identifying indicia, thereby allowing the laser beam to mark the package with one of the plurality of identifying indicia; and

projecting one of the plurality of identifying indicia on to the package.

32. The method of Claim 28, further including the steps of:

10 providing a plurality of overlapping disks, each disk having a plurality of characters representative of a portion of an identifying indicia; and

positioning the overlapping disks such that at least one of the characters from each disk aligns to form a complete stencil pattern having a unique identifying indicia to receive the laser beam therethrough.

15 33. An identifying indicia code changing system comprising:

a plurality of disks, each disk having a plurality of characters representative of a portion of an identifying indicia such that when the disks are at least partially overlapped, one of the characters from each disk aligns to perform a complete stencil pattern having a unique identifying indicia;

20 a pair of computer controlled mirrors; and

a galvanometer attached to each of the mirrors to control a path of the laser beam to be reflected by the pair of mirrors.

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